

REMARKS

Claims 1-55 are all the claims pending in the application. The Examiner has reviewed claims 1-26 in view of the provisional election of the claims in Applicants' May 31, 2005 telephone call to the Examiner. Applicants affirm this election.

Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority and receipt of the certified priority documents, and for considering the references filed with the application in the March 24, 2004 Information Disclosure Statement.

Applicants kindly request that the Examiner indicate acceptance of the drawings in the next Office Action.

I. 35 U.S.C. § 102(b) Rejection of Claims 1, 3-9, and 12

Claims 1, 3-9, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Matsuzaka et al. (U.S. Patent No. 6,023,599). The present invention embodied by elected claims 1-26, includes an image forming apparatus in which a rotating body with attached developer containers is rotated at claimed times (e.g., when starting or ending continuous printing of a single color) or sequences while printing. The rotation of the developer containers as well as the structural configuration of the developer containers allows the developer to mix within the container, thus avoiding problems associated with deterioration in developer flowability (see Figure 4, and the "First Aspect" of the invention described starting at page 14 of the present specification).

Matsuzaka et al. relates to a printer that includes rotational developing units/containers (see Figure 7). In Matsuzaka et al., the developing units 10Y, 10M, 10C, and 10K are rotated to

oppose a photoconductor (photosensitive member 1) to form the toner images (see col. 1, lines 25-48).

The grounds of rejection state that in Matsuzaka et al., the halt position is a temporary halt position and the standby position is a home position as described in col. 8, lines 44-58, and rotational movement occurs at least once when the apparatus starts or ends.

Solely to advance prosecution, Applicants have amended claims 1 and 12 to more clearly define the revolutionary aspect of the invention that “*said image forming apparatus causes rotational movement of said rotating body for at least one revolution ...*” In the present invention, the embodiments covered by independent claims 1 and 12 include rotation of the rotating body for at least one revolution, and many times 1.5 revolutions or more. Matsuzaka et al. is silent with respect to this feature and generally discusses only movement of a developing unit from a home position to a developing position (see col. 8, lines 43-51). Accordingly, independent claims 1 and 12, as well as dependent claims 3-9 are allowable at least for this feature.

II. 35 U.S.C. § 103(a) Rejection of Claim 13

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuzaka et al. in view of Suzuki (U.S. Patent No. 6,324,352). Suzuki et al. is only referenced for disclosing an image forming apparatus that includes a computer and display device. Suzuki also does not include disclosure with respect to the aforementioned “one revolution” feature. Rather, like the Matsuzaka et al. printer, the Suzuki cartridges 115Y, 115M, 115C, and 115Bk are rotated and aligned with photoconductive materials 116Y, 116M, 116C, and 116Bk (see col. 3, lines 5-

45). Claim 13 has been amended similar to claims 1 and 12, to more clearly define the rotational movement of the rotating body for at least one revolution.

III. 35 U.S.C. § 103(a) Rejection of Claims 2, 14-22, and 25

Claims 2, 14-22, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuzaka et al. in view of Suzuki. Applicants understand from the remainder of the grounds of rejection that the citation to Suzuki should read Matsuo et al. (U.S. Patent No. 6,345,160). Matsuo et al. is related to an image forming apparatus that seeks to solve the problem of density fluctuation (e.g., a lateral strip on an image) when one color is used exclusively for a period of time in a color printer (see col. 1, lines 32-58). As such, when monochrome printing, the other developer means are held inoperative (see col. 2, lines 9-13) so as to avoid influencing the electrical charge of the developer roller (thus, avoiding density fluctuation).

Claims 2, 14-22, and 25, in general, recite features of rotating the developer containers at a predetermined frequency or based on sheet count. The predetermined frequency feature is discussed as the second embodiment of the present invention.

The grounds of rejection generally cite col. 6, line 24 - col. 7, line 49 which discloses the sheet counting and reset operations of the Matsuo et al. device. In the Matsuo et al. device, developer rollers not in use during monochrome printing are made inoperative. At a period of time, the unused developer rollers may be rotated based on a number of sheets printed (see col. 1, lines 13-15 combined with col. 6, lines 24-34).

Claim 14 recites, *inter alia*, a feature wherein “the predetermined frequency after a number of sheets of media on which the images have been continuously formed has reached a

predetermined number of sheets is higher than the predetermined frequency before said number of sheets reaches said predetermined number of sheets.” In other words, the unit number of sheets for printing after the number of sheets of media on which images have been continually formed has reached the number of predetermined sheets is set smaller than the unit number of sheets before the number of sheets reaches the predetermined sheets. As such, for example, the rotating body rotates first at a frequency of 48 sheets, then 24 sheets, etc. (see present specification starting at page 94 and Figures 14A and 14B for this example).

The grounds of rejection do not specifically discuss this feature, but rather generally discuss the P_{set} operation of the Matsuo et al. printer. However, Matsuo et al. does not disclose reducing any predetermined frequency. Rather, Matsuo et al. only discloses an operation for counting a predetermined number of pages prior to resetting the developer (see the Examiner’s citation of col. 6, line 24 - col. 7, line 49). There is no disclosure that a subsequent reset of the developer be conducted at a higher predetermined frequency (or lower sheet count).

Accordingly, Applicants respectfully traverse the rejection of independent claim 14 on at least this basis. Claims 15-22 are allowable at least based on their dependency on claim 14.

Independent claim 25 also includes the “predetermined frequency” relationship, and is allowable for similar reasons as above. Claim 2 is allowable at least based on its dependency on claim 1.

IV. 35 U.S.C. § 103(a) Rejection of Claim 26

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuzaka et al. in view Matsuo et al. and Suzuki. Again, Suzuki et al. is only referenced for disclosing an image forming apparatus that includes a computer and display device. Claim 26 also includes

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the "predetermined frequency" relationship, and as such, Applicants submit that claim 26 is allowable for similar reasons as above. Suzuki et al. does not make up for this deficiency.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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